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NOTICE OF ALLOWANCE AND FEE(S) DUE

46320 7590 05/12/2008

CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP
STEVEN M. GREENBERG
950 PENINSULA CORPORATE CIRCLE
SUITE 3020
BOCA RATON, FL 33487

EXAMINER

ABEL JALIL, NEVEEN

ART UNIT

PAPER NUMBER

2165

DATE MAILED: 05/12/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/047,860

01/15/2002

John R. Hind

RSW920010181US1 (016)

5123

TITLE OF INVENTION: EDGE DEPLOYED DATABASE PROXY DRIVER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	08/12/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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46320 7590 05/12/2008

CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP
STEVEN M. GREENBERG
950 PENINSULA CORPORATE CIRCLE
SUITE 3020
BOCA RATON, FL 33487

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/047,860 01/15/2002 John R. Hind RSW920010181US1 (016) 5123

TITLE OF INVENTION: EDGE DEPLOYED DATABASE PROXY DRIVER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1440 \$300 \$0 \$1740 08/12/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
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ABEL JALIL, NEVEEN 2165 707-010000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,860	01/15/2002	John R. Hind	RSW920010181US1 (016)	5123
46320	7590	05/12/2008	EXAMINER	
CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP STEVEN M. GREENBERG 950 PENINSULA CORPORATE CIRCLE SUITE 3020 BOCA RATON, FL 33487			ABEL JALIL, NEVEEN	
			ART UNIT	PAPER NUMBER
			2165	
			DATE MAILED: 05/12/2008	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 660 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 660 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/047,860

Examiner

Neveen Abel-Jalil

Applicant(s)

HIND ET AL.

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Board of Appeals Decision 1/8/08.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Neeven Abel-Jalil/
Primary Examiner, Art Unit 2165

DETAILED ACTION

Remarks

1. In response to Board of Appeals decision rendered January 8, 2008, claims 1-19 are now pending.
2. Note: Applicant's "computer system" of claim 1 is taken to inherently requiring and comprising hardware as evident in Figure 1, 150, and paragraph 0040 (published version) of Applicant's specification.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Scott D. Paul (Attorney of Record) on May 7, 2008 and May 8, 2008.

Amendments to the Claims:

4. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listings of Claims:

1. (Currently Amended) A database access computer system comprising:

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a universal database connectivity driver having a first exposed interface through which access to a database server ~~is~~ ~~can be~~ provided;

a database proxy driver registered with said universal database connectivity driver, said database proxy driver;

having a second exposed interface conforming ~~which conforms~~ with said first exposed interface of said universal database connectivity driver, ~~said database proxy driver having a configuration for~~

invoking at least one auxiliary task, and ~~in addition to~~

providing access to said database server through said first exposed interface of said universal database connectivity driver; and,

a database driven application programmatically linked to said database proxy driver through said second exposed interface.

2. (Currently Amended) The database access computer system of claim 1, wherein each of said universal database connectivity driver, database proxy driver and database driven application are disposed in an edge device in a computer communications network.

3. (Currently Amended) The database access computer system of claim 2, wherein said auxiliary task is load balancing.

4. (Currently Amended) The database access computer system of claim 1, wherein said auxiliary task is caching.

5. (Currently Amended) The database access computer system of claim 1, further comprising:

- a log file of data request meta-information; and,
- an application analyzer configured to tune operation of said auxiliary task based upon said meta-information.

6. (Currently Amended) A database access method within a database proxy driver, the method comprising:

- receiving a database connectivity request, from a database driven application, through a corresponding ~~first~~ second exposed interface ~~database connectivity method~~ ~~from a database driven application~~;

- forwarding said database connectivity request, to an universal ~~underlying~~ database connectivity driver, through a corresponding ~~first~~ second exposed interface ~~method~~ ~~having a method prototype~~ which matches a ~~method~~ prototype of said ~~first~~ second exposed interface ~~database connectivity method~~; and,

- performing at least one auxiliary task in addition to forwarding said database connectivity request.

7. (Original) The database access method of claim 6, further comprising performing each of the receiving, forwarding and performing steps in an edge device.

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8. (Original) The database access method of claim 7, wherein said performing step comprises performing a load balancing task.

9. (Original) The database access method of claim 7, wherein said performing step comprises performing a database caching task.

10. (Original) The database access method of claim 6, further comprising:
collecting meta-data for each received database connectivity request; and,
modifying operation of said auxiliary task based upon an analysis of said collected meta-data.

11. (Original) The database access method of claim 10, wherein said modifying step comprises generating rules which direct database connectivity requests to particular instances of a database server which are most likely to respond quickly based upon database latency patterns inherent in said collected meta-data.

12. (Original) The database access method of claim 11, wherein said modifying step comprises selectively caching result sets in a database cache based upon request frequency patterns inherent in said collected meta-data.

13. (Currently Amended) A machine readable storage having stored thereon a computer program for providing database access, the computer program comprising a

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routine set of instructions for causing the machine to perform the steps within a database proxy driver of:

receiving a database connectivity request, from a database driven application, through a corresponding ~~first~~ second exposed interface ~~database connectivity method~~ ~~from a database driven application~~;

forwarding said database connectivity request₁ to an universal ~~underlying~~ database connectivity driver₁ through a corresponding ~~first~~ second exposed interface ~~method~~ having a ~~method~~ prototype which matches a ~~method~~ prototype of said ~~first~~ second exposed interface ~~database connectivity method~~; and,

performing at least one auxiliary task in addition to forwarding said database connectivity request.

14. (Original) The machine readable storage of claim 13, further comprising performing each of the receiving, forwarding and performing steps in an edge device.

15. (Original) The machine readable storage of claim 14, wherein said performing step comprises performing a load balancing task.

16. (Original) The machine readable storage of claim 14, wherein said performing step comprises performing a database caching task.

17. (Original) The machine readable storage of claim 13, further comprising: collecting meta-data for each received database connectivity request; and,

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modifying operation of said auxiliary task based upon an analysis of said collected meta-data.

18. (Original) The machine readable storage of claim 17, wherein said modifying step comprises generating rules which direct database connectivity requests to particular instances of a database server which are most likely to respond quickly based upon database latency patterns inherent in said collected meta-data.

19. (Currently Amended) The machine readable storage ~~access method~~ of claim 17, wherein said modifying step comprises selectively caching result sets in a database cache based upon request frequency patterns inherent in said collected meta-data.

Allowance

5. Claims 1-19 are allowed over the prior art made of record.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Graham (U.S. Pub. No. 2003/0055826 A1) teaches a database interface system that includes a data source driver and an interface facility.

Barga et al. (U.S. Patent No. 6,801,914 B2) teaches proxy driver in the database server side as well as driver manager on the client side.

Vange et al. (U.S. Pub. No. 2002/0004796) teaches distributed database services through a gateway proxy server.

Marks et al. (U.S. Pub. No. 2003/0074632) teaches master proxy server for session management.

Cook (U.S. Patent No. 7,111,052) teaches user based proxy and subscriber proxy working as dynamic proxies.

Barry et al. (U.S. Patent No. 7,225,249) teaches providing integrated communication at mid-range server acting as the proxy.

For complete list of cited relevant art, see PTO-form 892.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian P. Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neveen Abel-Jalil
Primary Examiner
May 8, 2008
/Neeven Abel-Jalil/

Primary Examiner, Art Unit 2165